Classic Values, Innovative Advice

City of Annapolis Police and Fire Retirement Plan

Actuarial Valuation Report as of July 1, 2016

Produced by Cheiron

February 2017

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February 6, 2017

Board of Trustees
City of Annapolis Police and Fire Retirement Plan
Municipal Building
Annapolis, Maryland 21401

Dear Members of the Board of Trustees:

At your request, we have conducted the annual actuarial valuation of the Police and Fire Retirement Plan (Plan) as of July 1, 2016. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the foreword.

This report contains information on Plan assets, as well as analyses combining asset and liability performance and projections. The report also discloses City contribution levels.

In preparing our report, we relied on information, some oral and some written, supplied by the City of Annapolis. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The results of this report are only applicable to the City contribution for fiscal year ending (FYE) 2017 and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This valuation was prepared for the Police and Fire Retirement Plan for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. This valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron

Fiona E. Liston

Fiona E. Liston, FSA, EA, MAAA
Principal Consulting Actuary

Elizabeth Wiley, FSA, EA, FCA, MAAA
Consulting Actuary

FOREWORD

Cheiron has performed the annual actuarial valuation of the City of Annapolis Police and Fire Retirement Plan (Plan) as of July 1, 2016. The purpose of this report is to:

1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan,
2) **Indicate trends** in the financial condition of the Plan,
3) Advise on the sufficiency of the **City contribution rate**, and
4) **Provide** accounting statement information.

An actuarial valuation establishes and analyzes plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the plan's investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years.

Section II contains details on various asset measures, together with pertinent performance measurements.

Section III shows similar information on the Plan liabilities, measured for actuarial, accounting, and governmental reporting purposes.

Section IV develops the calculated City contribution rate determined using actuarial techniques and compares that to the currently contributed City rate.

Section V develops the present value of accrued benefits information.

The appendices to this report contain a summary of the Plan's membership at the valuation date, the actuarial methods and assumptions used in this valuation, and a summary of the major provisions of the Plan.

In preparing our report, we relied on information (some oral and some written) supplied by the City of Annapolis. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The actuarial assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions as a whole represent our best estimate for the future experience of the Plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan will vary from our results.

SECTION I – SUMMARY

General Comments

Beginning in at least 1993 and through 2008, the Plan was over 100% funded. Throughout this period, steps were taken to reduce the Plan's overfunding. These steps included making a combined City and member contribution that totaled less than the 25% of payroll that then represented the value of benefits accruing annually and making various benefit improvements. In FYE 2009, the Plan lost a great deal of asset value in the market downturn resulting in the Plan becoming less than 100% funded, with unfunded liabilities instead of the previous surplus. Steps have been taken since that time to increase both member and City contributions and to reduce liabilities by adjusting the Plan provisions for those hired after July 1, 2012. The impact of these changes will continue to emerge over the coming years.

Over the last fiscal year, the assets returned 1.05% on a Market Value of Assets basis. However, due to the Plan's asset smoothing method, which recognizes only a portion of this loss, the return on the Actuarial Value of Assets (AVA) was 4.97%. This return was smaller than the assumed rate of return of 7.5%, resulting in an actuarial loss on assets of $4.2 million. For the FYE 2016, there was also a gain on liabilities of $3.8 million. This liability gain over what was expected was composed of a gain of $2.2 million due to a higher mortality than expected, a $0.6 million gain from salary increases smaller than expected, a $0.6 million gain due to Old Plan and Old Plan Revised retirees receiving lower increases than assumed, and a $0.4 million gain from remaining experience different from expected. Combined with the asset loss, the result is an overall loss of $0.4 million for the year.

The calculated City contribution rate developed in this valuation is developed as a benchmark to evaluate the sufficiency of the current City contribution rate of 18%. The calculated rate is developed to provide the funding necessary for the additional benefits being accrued for that year by actives while also paying down the Plan's unfunded liabilities over a closed amortization period with 28 years remaining as of July 1, 2016. The calculated City contribution based on this funding policy for FYE 2017 is 20.91% of payroll, net of the current member contributions. This calculated benchmark is 2.91% greater than the current City contribution rate of 18%. This gap means that the contributions expected to be paid into the Plan for FYE 2017 will have 2.91% of payroll less available to pay down the existing unfunded liabilities of the Plan than the amount needed to meet the benchmark funding targets.

The remainder of this section presents trend information showing the history of where the Plan's funding has been and projections of where it may go.

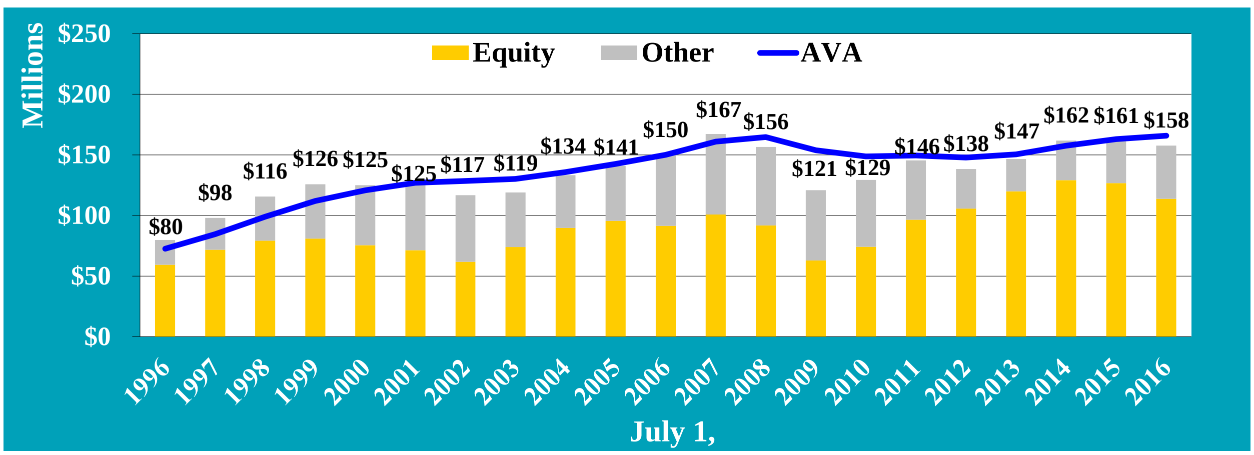
Trends

We believe it is important to take a step back from the latest results and view them in the context of the Plan's recent history. On the next pages, we present a series of charts displaying key factors in the last 20 years' valuations. After this historical review, we then present a few projection graphs, showing the possible funding condition of the Plan over the next 15 years under various scenarios of market returns.

SECTION I – SUMMARY

Growth in Assets

Over the period July 1, 1996 to June 30, 2016, the Plan's assets returned approximately 6.5% on a market value basis and 7.1% on an actuarial value basis, compared to a current valuation assumption of 7.50%. As of each valuation date shown, the graph below provides the value of the Plan's assets on two bases. The top of the yellow and gray bars gives the value of the Plan's assets on a Market Value of Assets basis, while the blue line gives the value of the Plan's assets as of these dates on an actuarial, or smoothed, value of assets basis. This shows the decreased volatility of the assets on an actuarial basis over this period compared to a market basis. This graph also shows, on a market basis, the division of the total Market Value of Assets into those invested in equities, given by the top of the yellow bars, and the remainder of the Plan's assets, given by the size of the graph bars. This shows that the proportion of the Plan's assets invested in equities has varied over this period, with a decline in the most recent four years.



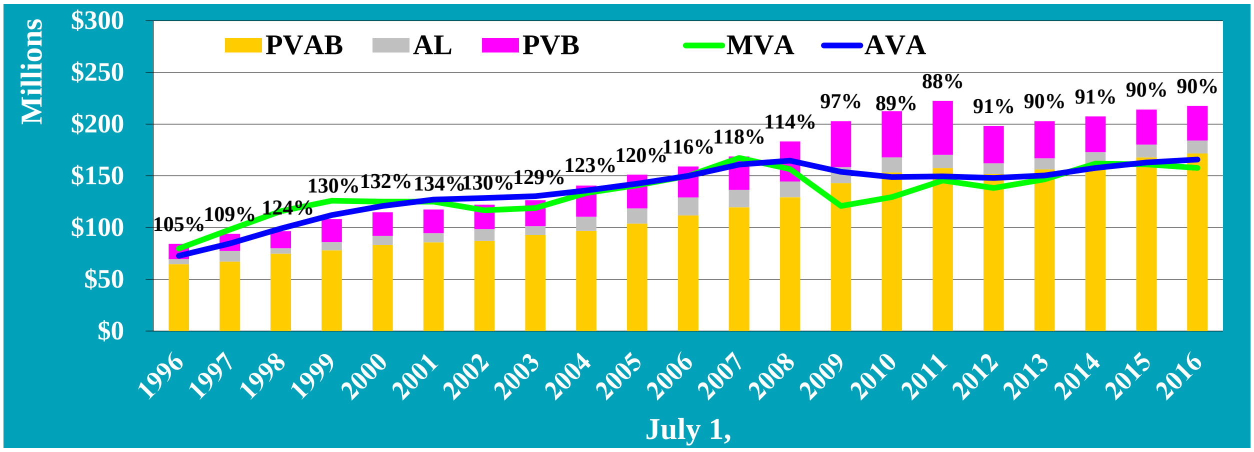
Assets and Liabilities

The three colored bars in the next graph represent the three different measures of liability for the Plan mentioned in this report. The first measure is given by the yellow bars, the present value of accrued benefits (PVAB). The PVAB values represent the value of all benefits earned by current members through the valuation date. These values do not reflect any future additional service or salary increases for current members beyond the valuation date.

The second liability measure is the one currently used for the Plan's funding target, the actuarial liability (AL). These target amounts are represented by the top of the gray area. This measurement is also the basis of the liability measure required for Governmental Accounting Standards Board (GASB) No. 67. The funded ratios reported by this Plan are the percentages shown above the bars and are developed by comparing these target measurements of liability to the Actuarial Value of Assets at each valuation date.

SECTION I – SUMMARY

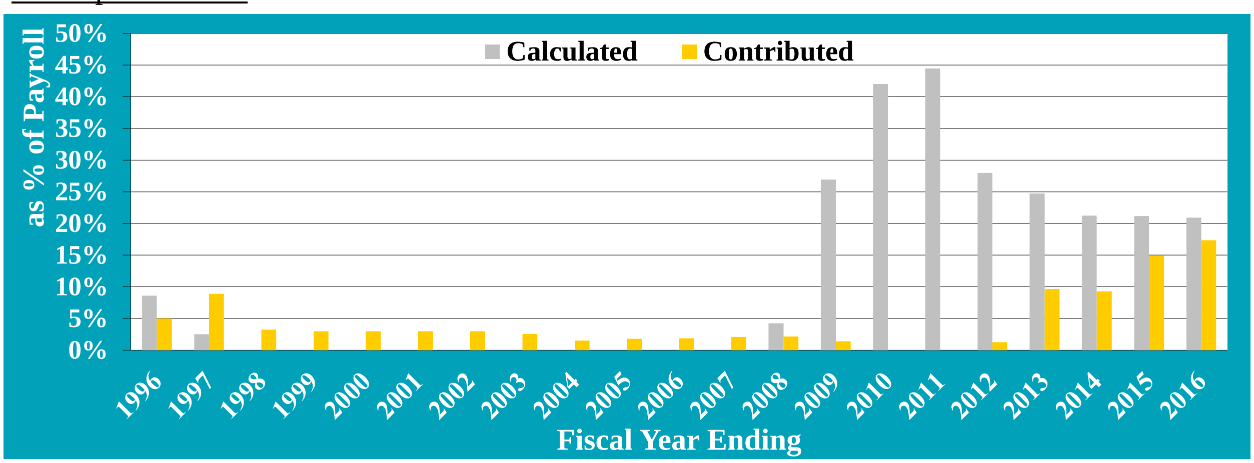
The amount represented by the top of the pink bars, the present value of benefits (PVB), is the amount needed to provide all benefits for the current members and their beneficiaries, including reflection of assumed future service and pay increases. If the Plan had assets equal to the PVB, no additional contributions would, in theory, be needed to pay the benefits of the current members if all assumptions were exactly met from that point forward.



Contribution Rates

The graph below shows the recent history of the actuarially calculated City contribution rate, denominated as a percentage of payroll, as well as the actual City contribution. From 1998 through 2007, the valuation developed a contribution rate of zero. The City continued to contribute to the Plan in spite of the zero calculated amounts. Now that the surplus is exhausted, the calculated rate has increased substantially, and steps have been taken on both the plan design and contribution fronts to address this. While the contributed rate remains lower than the calculated rate, the gap between the two has been closing in recent years.

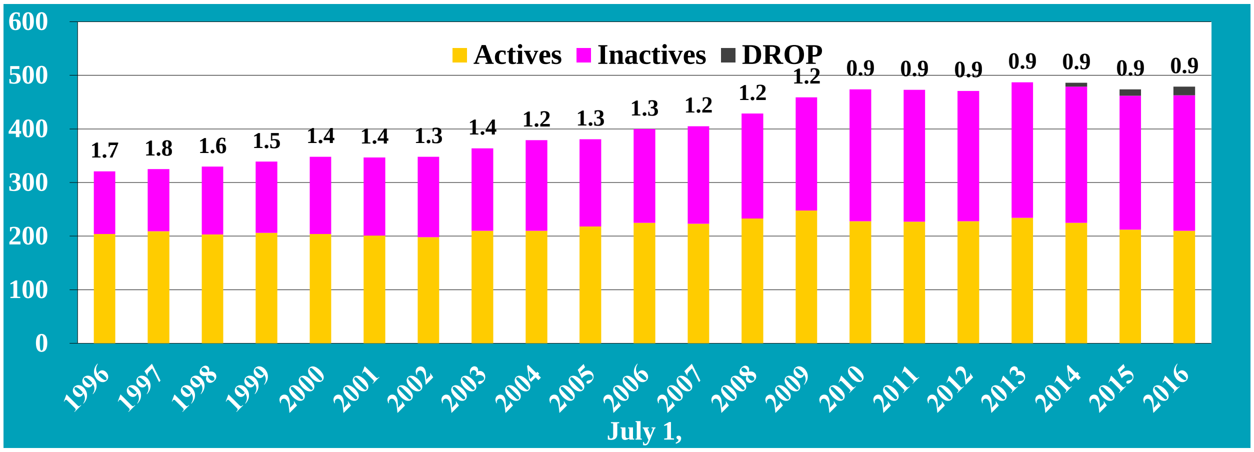
Participant Trends



The bars below show the number of members as of each valuation date, divided between active members, DROP members, and the combination of terminated vested members and

SECTION I – SUMMARY

retirees/beneficiaries. The numbers that appear above each bar represent the ratio of active members to inactive members at each valuation date. Members in DROP are included in the active count for purposes of developing this ratio, since the City makes contributions on their payroll. As with most maturing funds, the Plan has shown a decline in this ratio over the trend period shown, but this has stabilized in the last few years. The graph also shows that the number of actives covered by the Plan has declined over the past three years.

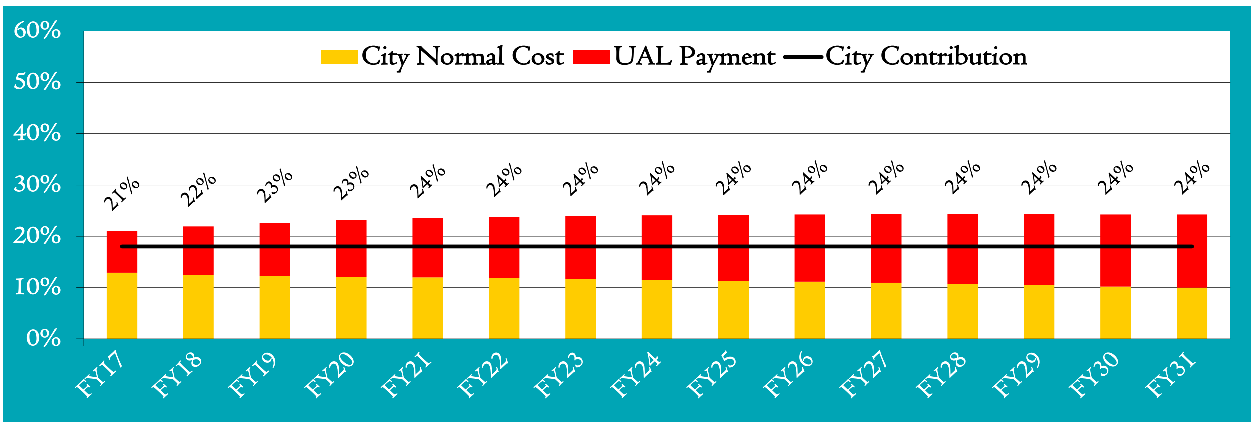


SECTION I – SUMMARY

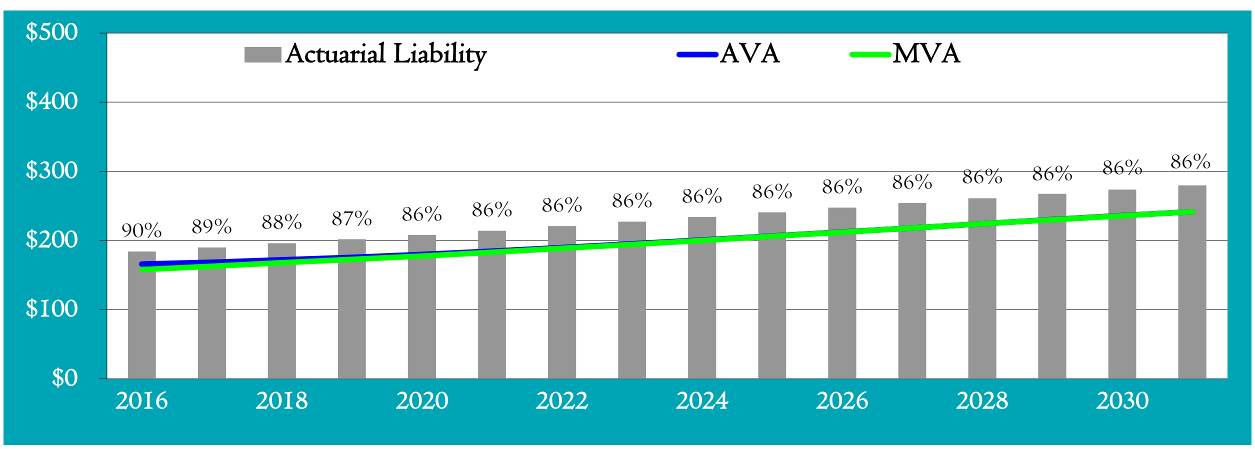
Future Outlook

Baseline Projections

The two graphs in this baseline projection section show the expected progress of the Plan over the next 15 years, assuming the Plan's assets earn exactly 7.5% per year on a *market* value basis and assuming all other assumptions are exactly met, including that the City continues to pay the current contribution rate of 18% in all future years. They also assume that member contributions are 8.0% for all future years in accordance with the current bargained rates for all members. The first graph shows that the current 18% City contribution rate is expected to remain insufficient compared to the calculated City contribution, which equals the sum of the yellow City normal cost rate and the red unfunded rate, for the entire period shown. This graph also shows that the gap between the 18% and the calculated City rate is expected to grow under this scenario, as the insufficiency of previous years' City contributions compared to the calculated rate result in increasing unfunded liabilities.



The second baseline projection, below, shows the projected funding status over the next 15 years under the same scenario as well as the projected values of the actuarial liability and assets on both a market and actuarial value basis. It is expected under this scenario that the funding ratio will slowly decrease from its current level of 90% to 86% by the 2031 valuation date.

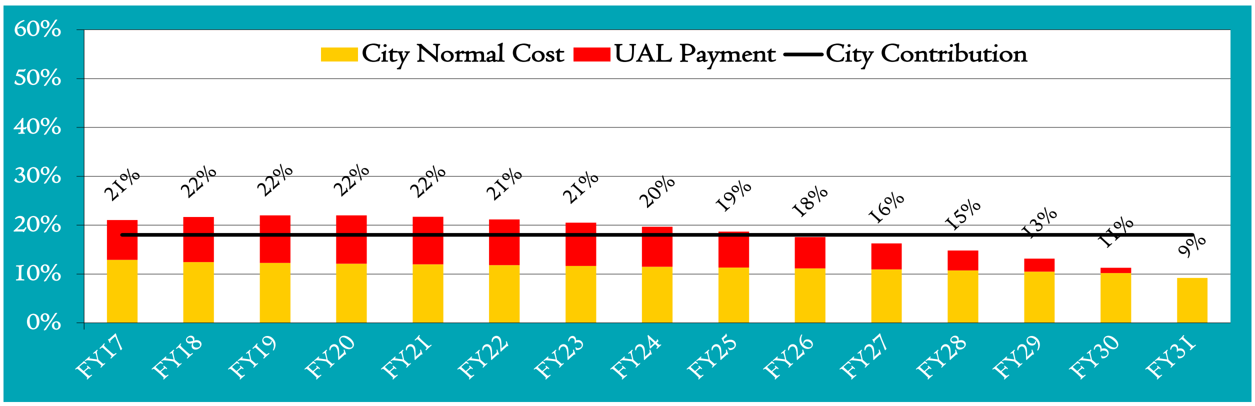


SECTION I – SUMMARY

Projections with Asset Returns of 8.5%

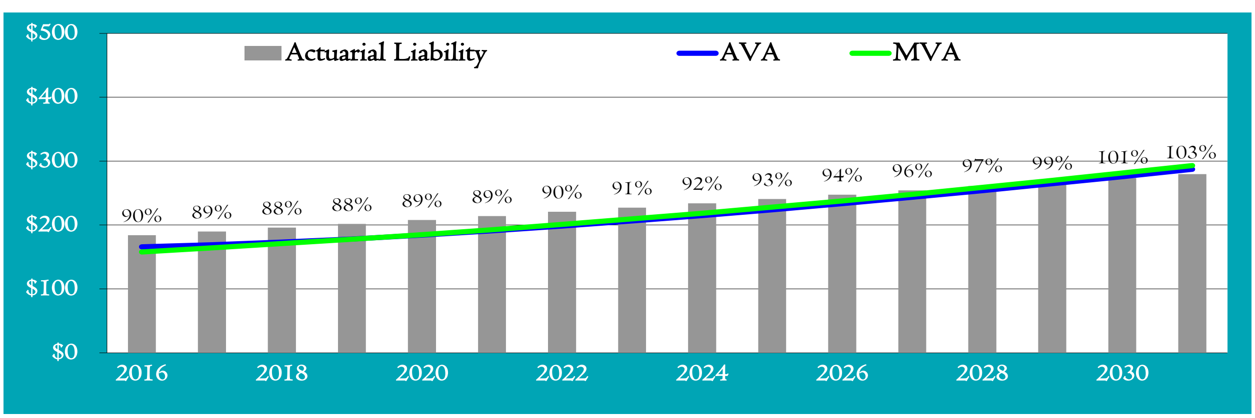
In these next two graphs, we show what the anticipated calculated City contribution rates and funded ratios would be expected to look like assuming that the Plan's investment performance, on a *market* basis, is 8.5% each year of the projection, 1.0% higher than the valuation investment rate of return assumption.

Note that the graphs shown in this section assume all other assumptions are exactly met, including that the City contribution rate actually paid remains at 18% for each year of the projection period.



The first graph in this section shows that the calculated City contribution rate in this scenario would drop below the current 18% City contribution rate by the end of the period shown and continue downwards.

The second graph shows similar information to that shown in the baseline section, but in this scenario shows the funded ratios of the Plan growing by the end of the projection period to 103% compared to the 86% funded ratio developed at the end of the projection period in the baseline scenario. However, it is important to remember that the projections shown in this scenario include the assumption that the City and member rates would remain unchanged even as the Plan becomes well-funded.

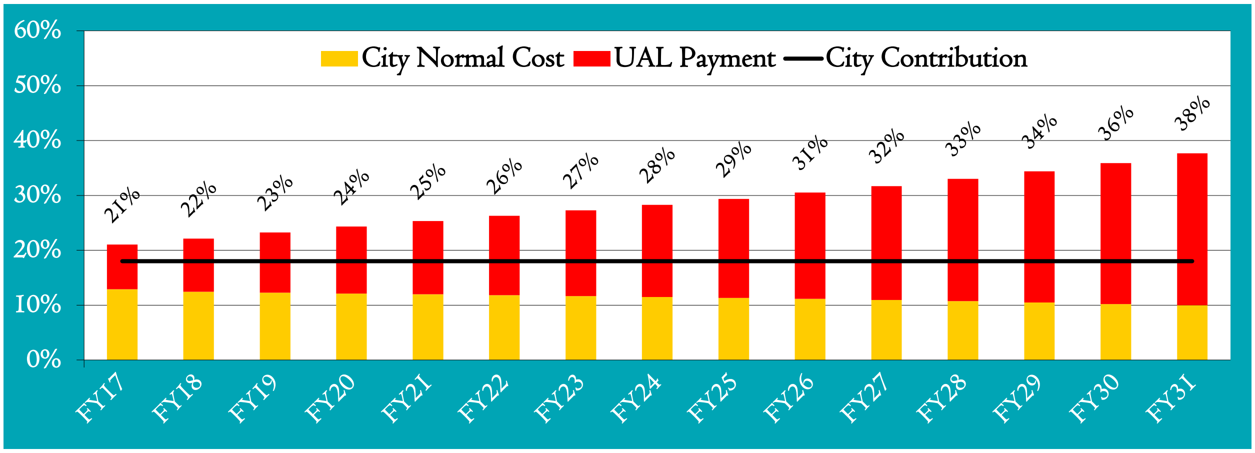


SECTION I – SUMMARY

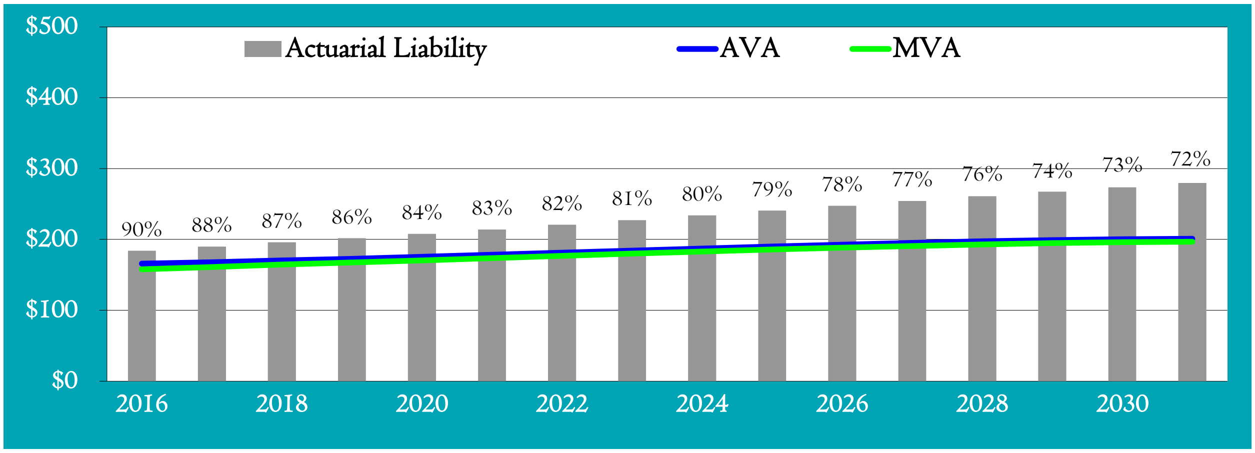
Projections with Asset Returns of 6.50%

While investment returns in excess of the assumed 7.5% can lead to funding improvement, here we show the impact of the Plan earning 1.00% less than the assumption. If the assets return only 6.50% per year on a *market* basis, the negotiated City contribution rates remain below the calculated rate for the entire period shown. In fact, the gap between the calculated rate and 18% expands over the period even more than it did in the baseline scenario. By the end of the projection period, this scenario shows that the calculated City rates would grow to 38% of payroll as compared to the 24% rate developed for this year in the baseline scenario.

Note that these projections assume all other assumptions are exactly met, including the contribution assumptions detailed in the baseline scenario. Further, in this scenario, as in all the alternate scenarios shown, we have not changed the discount rate used in developing the liabilities.



The second graph provided in this section shows that in this scenario the funded ratio of the Plan would decline even more than in the baseline scenario, falling to an ultimate rate of 72% at the end of the projection period compared to the 86% developed in the baseline scenario.



SECTION I - SUMMARY

Table I - 1
City of Annapolis Police and Fire Retirement Plan
Summary of Principal Results

	July 1, 2015	July 1, 2016	% Change
Participant Counts			
Active Members	212	210	(0.9%)
Inactive Members	27	30	11.1%
DROP Participants	12	16	33.3%
Terminated Vested Members	2	2	0.0%
Retired Members	145	141	(2.8%)
Disabled Members	47	45	(4.3%)
Beneficiaries	29	35	20.7%
TOTAL	474	479	1.1%
Annual Projected Salary of Active Members	$ 16,430,406	$ 16,593,845	1.0%
Annual Projected Salary of Members in DROP	$ 1,240,993	$ 1,662,650	34.0%
Annual Benefits in Pay Status			
Total Benefits	$ 9,805,770	$ 9,818,808	0.1%
Less Annuitized Amounts	442,911	426,206	(3.8%)
Net Payable from Plan Assets	$ 9,362,859	$ 9,392,602	0.3%
Assets & Liabilities			
Total Actuarial Liability	$ 180,158,394	$ 184,099,524	2.2%
Actuarial Value of Assets	162,979,335	165,829,252	1.7%
Unfunded Actuarial Liability (UAL) (Surplus)	$ 17,179,059	$ 18,270,272	6.4%
Funded Ratio using AVA	90%	90%	
Funded Ratio using MVA	89%	86%	
Contribution Results as % of Payroll			
City Normal Cost	13.44%	12.87%	
Calculated Amortization of UAL/(Surplus)	7.73%	8.04%	
Calculated City Contribution Rate	21.17%	20.91%	

SECTION II – ASSETS

Pension plan assets play a key role in the financial operation of the Plan and in the decisions that the Board of Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, contributions, and the ultimate security of members' benefits.

In this section, we present detailed information on the Plan assets including:

- **Disclosure** of the Plan's assets at July 1, 2015 and July 1, 2016,
- Statement of the **changes** in market values during FYE 2016,
- Development of the **Actuarial Value of Assets**,
- An assessment of **investment performance**, and
- A **projection** of the Plan's expected **cash** flows for the next 10 years.

Market Value of Assets Disclosure

The Market Value of Assets represent "snapshot" or "cash-out" values that provide the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with corresponding swings in the marketplace, and as such are usually not suitable for long-range planning.

Table II-1 below shows the components of the Market Value of Assets as of July 1, 2015 and July 1, 2016.

Table II - 1
Assets at Market Value

	July 1, 2015	July 1, 2016
Loomis Sayles Stock	$ 23,028,776	$ 19,556,125
Edgar LoMax	13,910,172	13,866,480
Allegis Realty	8,069,380	9,088,951
Lazard Corp Bond	16,799,572	24,531,877
Administrative Account	7,302,171	4,005,770
Cooke & Bieler	5,771,872	5,232,103
Loomis Sayles	7,743,247	4,948,471
Alternatives Gresham	38,422,738	34,730,641
Affinity	0	2,669,913
Garcia	0	5,261,608
Mutual Funds	40,119,802	33,819,593
Total Assets	**$ 161,167,730**	**$ 157,711,532**

Changes in Market Value

The components of asset change are as follows:

- Contributions
- Benefit payments
- Expenses
- Dividends and interest income
- Investment income (realized and unrealized)

Table II-2 below shows the market values as of July 1, 2015 and July 1, 2016, along with the changes between the two. Note that between the issuance of the 2015 valuation report and the City's final 2015 CAFR the asset value was restated. We show this restatement in the line item "adjustment" and have included the additional investment earnings in the calculation of this year's 1.05% return.

Table II - 2 Changes in Market Values of Assets		
Market Value of Assets - reported in July 1, 2015 valuation		$ 161,167,730
Adjustment (to be included as investment return this year)		1,154,058
Final Market Value of Assets - July 1, 2015		**$ 162,321,788**
Additions		
Member Contributions	$ 1,324,069	
City Contributions	2,877,922	
Investment Returns (net of investment expense)	515,669	
Total Additions	**$ 4,717,660**	
Deductions		
Benefit Payments	$ (9,327,917)	
Administrative Expenses	0	
Total Deductions	**$ (9,327,917)**	
Net Change	$ (4,610,257)	
Market Value of Assets at July 1, 2016		**$ 157,711,531**
Return on Market Value of Assets for FYE 2016		**1.05%**

SECTION II – ASSETS

Actuarial Value of Assets

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results that could develop from short-term fluctuations in the Market Value of Assets. The actuarial value for this Plan equals the expected Actuarial Value of Assets, developed from the immediately prior valuation, plus one-third of the difference between the actual Market Value of Assets and that expected Actuarial Value of Assets at the valuation date. The expected actuarial value is the previous year's actuarial asset value adjusted with contributions, benefit payments, and interest at 7.5%, the Plan's assumed rate of return from the prior valuation. Table II-3 below illustrates the calculation of the Actuarial Value of Assets as of July 1, 2016 as well as the value of the asset gain/(loss) on an Actuarial Value of Assets basis.

Table II - 3 Development of Actuarial Value of Assets		
1.	Actuarial Value of Assets at July 1, 2015	$ 162,979,335
2.	Member and City Contributions for the FYE 2016	4,201,991
3.	Benefit Payments for the FYE 2016	(9,327,917)
4.	Expected Investment Return (at 7.5%) for FYE 2016	12,034,703
5.	Expected Actuarial Value of Assets at July 1, 2016 (1) + (2) + (3) + (4)	$ 169,888,112
6.	Actual Market Value of Assets at July 1, 2016	$ 157,711,531
7.	Recognized Gain (Loss) [33.3% of [(6) - (5)]	(4,058,860)
8.	Actuarial Value of Assets at End of Year: (5) + (7)	$ 165,829,252
Calculation of Asset Gain/(Loss) on Actuarial Value of Assets		
1.	Expected Actuarial Value of Assets at July 1, 2016	$ 169,888,112
2.	Actual Actuarial Value of Assets at July 1, 2016	165,829,252
3.	Asset Gain/(Loss) During Plan Year as of July 1, 2016 [(2) - (1)]	$ (4,058,860)

Investment Performance

The Market Value of Assets (MVA) returned 1.05% during FYE 2016, which is less than the assumed 7.5% investment rate of return. The Actuarial Value of Assets (AVA) returned 4.97% over this same year, reflecting the asset smoothing method being utilized by the Plan for the measurement of the AVA. Since only one-third of the gain or loss from the performance of the Plan's assets is typically recognized in a given year under the asset smoothing method, in periods of very good performance, the AVA can lag significantly behind the MVA, and in a period of negative returns, the AVA does not decline as rapidly as the MVA.

Projection of Cash Flows

Table II-4 shows a 10-year projection of the Plan's expected benefit payments and contributions. Benefits are projected in accordance with the actuarial assumptions used in the valuation for the closed group at June 30, 2016. Projecting any further than 10 years using a closed group would not yield reliable projections due to the omission of new hires in the benefit payments,

SECTION II – ASSETS

compounded by their inclusion in the expected contributions. The projected contributions include both member and City contributions at the current negotiated rates of 8.00% and 18.00%, respectively.

Over the 10-year period shown, the expected benefit payments exceed expected contributions. This indicates that this is a mature fund. The projected shortfall will have to be paid from current assets and future investment earnings. The Trustees should take these cash flow needs into account when planning future investments.

Table II - 4

Projection of Plan's Benefit Payments

Fiscal Year Ending	Expected Benefit Payments*	Expected Contributions**
2017	$ 11,317,000	$ 4,671,000
2018	11,643,000	4,834,000
2019	12,460,000	5,003,000
2020	12,257,000	5,178,000
2021	12,753,000	5,360,000
2022	13,283,000	5,547,000
2023	13,820,000	5,741,000
2024	14,367,000	5,942,000
2025	14,915,000	6,150,000
2026	15,472,000	6,366,000

* The payment stream shown reflects only the Plan-paid portion of expected benefits and not the portion annuitized in 1992.

** Expected contributions include City and member contributions assumed to remain at the current negotiated levels of 18.00% and 8.00%, respectively, for the projection period shown, and total covered payroll is assumed to increase at 3.5% per year.

SECTION III – LIABILITIES

In this section, we present detailed information on Plan liabilities for funding purposes, including:

- **Disclosure** of the Plan liabilities at July 1, 2015 and July 1, 2016, and
- Statement of **changes** in these liabilities during the year.

Disclosure

Three liability measurements are calculated and presented in this report. Each type is distinguished by the purpose, or purposes, for which they are used.

- **Present Value of Benefits (PVB):** Used for analyzing the financial outlook of plans, this represents the amount of money needed today to fund all future benefits and expenses of a plan, assuming current members continue to accrue benefits and there are no new entrants, and that all actuarial assumptions are exactly met.

- **Actuarial Liability (AL):** Used for funding calculations for the Plan and GASB disclosures, this liability is calculated by taking the present value of benefits (PVB) and subtracting the present value of future member contributions (PVFEEC) and the present value of future City normal costs (PVFNC) under an acceptable actuarial funding method. The Plan uses the **Entry Age Normal** funding method.

- **Present Value of Accrued Benefits (PVAB):** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fund the current accrued obligations of a plan, assuming no future accruals of benefits or salary increases. These liabilities are also required for some accounting purposes of some plans (Topic No. 960) and sometimes used as part of assessing whether a plan can meet its current benefit commitments. Note that the development of this amount also assumes that all actuarial assumptions are met, including the assets earning exactly 7.5% per year.

Note that none of the liability amounts disclosed in this report is appropriate for measuring a settlement of the Plan's liabilities.

Table III-1 discloses each of these liabilities for the current and immediately prior valuations. With respect to each disclosure, a subtraction of the appropriate value of plan assets yields, for each respective type, a **net surplus** or an **unfunded liability**.

SECTION III – LIABILITIES

Table III - 1
Liabilities/Net (Surplus) Unfunded

	July 1, 2015	July 1, 2016
Present Value of Benefits		
Active Member Benefits	$ 84,272,136	$ 85,135,295
DROP Member Benefits	11,320,306	15,688,415
Retiree, Beneficiary, Disabled, and Terminated Member Benefits	118,426,588	116,864,269
Present Value of Benefits (PVB)	**$ 214,019,030**	**$ 217,687,979**
Market Value of Assets (MVA)	161,167,730	157,711,531
Future Member Contributions	11,528,873	11,492,867
Future City Contributions (16% in FYE16; 18% in FYE17+)	24,914,458	27,883,740
Total Resources	**$ 197,611,061**	**$ 197,088,138**
Net (Surplus)/Unfunded PVB on MVA Basis (PVB-MVA)	**$ 16,407,969**	**$ 20,599,841**
Actuarial Liability		
Present Value of Benefits (PVB)	$ 214,019,030	$ 217,687,979
Present Value of Future City Normal Costs (PVFNC)	22,331,763	22,095,588
Present Value of Future Member Contributions (PVFEEC)	11,528,873	11,492,867
Actuarial Liability (AL=PVB-PVFNC-PVFEEC)	**$ 180,158,394**	**$ 184,099,524**
Actuarial Value of Assets (AVA)	162,979,335	165,829,252
Net (Surplus)/Unfunded AL on AVA Basis (AL-AVA)	**$ 17,179,059**	**$ 18,270,272**
Present Value of Accrued Benefits		
Present Value of Benefits (PVB)	$ 214,019,030	$ 217,687,979
Present Value of Future Benefit Accruals (PVFBA)	46,103,276	46,032,382
Present Value of Accrued Benefits (PVAB=PVB-PVFBA)	**$ 167,915,754**	**$ 171,655,597**
Market Value of Assets (MVA)	161,167,730	157,711,531
Net (Surplus)/Unfunded PVAB on MVA Basis (PVAB-MVA)	**$ 6,748,024**	**$ 13,944,066**

SECTION III – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New entrants since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial assumptions
- A change in actuarial method

Unfunded liabilities (or surpluses), developed from subtraction of an appropriate value of Plan assets from these liability measures, will change because of all of the above as well as due to changes in Plan asset measures resulting from:

- City or member contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure the Plan assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below, we present key changes in liabilities since the last valuation.

Table III - 2
Liability Measurements Changes

	Present Value of Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liability at July 1, 2015	$ 214,019,030	$ 180,158,394	$ 167,915,754
Liability at July 1, 2016	217,687,979	184,099,524	171,655,597
Liability Increase (Decrease)	3,668,949	3,941,130	3,739,843
Changes Due to:			
Actuarial (Gain)/Loss	NC	(3,824,886)	NC
Methodology Change	0	0	0
Benefits Accumulated and Other Sources	3,668,949	7,766,016	3,739,843

NC = Not Calculated

SECTION III – LIABILITIES

Table III-3 below provides additional information about the liability measurements for funding purposes as of both the current and the immediately prior valuations.

Table III - 3 Plan Liabilities	
1. Present Value of Benefits (PVB)	
a. Active Members	$ 85,135,295
b. Retired Members	116,562,665
c. Terminated Vested Members	172,370
d. DROP Participants	15,688,415
e. Inactive Members	129,234
Total PVB	**$ 217,687,979**
2. Present Value of Future City Normal Costs (PVFNC)	22,095,588
3. Present Value of Future Member Contributions (PVFEEC)	11,492,867
4. Actuarial Liability [(1) - (2) - (3)]	$ 184,099,524
5. Actuarial Value of Assets	165,829,252
6. Unfunded Actuarial Liability [(4) - (5)]	$ 18,270,272

SECTION IV – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level, if any, of contributions is needed to properly maintain the funding status of the plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both fairly stable and predictable.

For this plan, negotiations determine the actual contributions, but we develop calculated City contribution rates in each valuation that are used as a benchmark to assess the adequacy of the negotiated contributions. The funding mechanism used in developing this calculated rate is the **Entry Age Normal funding method**. Under this method, there are two components to the total calculated City contribution rate: (i) **a City normal cost rate**, and (ii) **an Unfunded Actuarial Liability (UAL) amortization payment rate**.

The City normal cost rate is determined in the following steps. First, for each active member an individual total normal cost rate is determined by taking the value, as of entry age into the Plan, of that member's projected future benefits and dividing it by the value, also at entry age, of the member's projected future salary. Then, this individual total normal cost rate is reduced by the member's contribution rate to produce the City normal costs amount for each member. This rate is then multiplied by each member's expected salary for the next year beginning on the valuation date to get the total City normal cost amount. To develop the total City normal cost rate, the sum of the City normal costs amount for all active members is divided by the sum of the expected salary for the next year beginning on the valuation date for all active members. These amounts and rates relating to normal cost represent the cost to fund that portion of the total future obligations, which has been allocated to the current year based upon the actuarial funding method.

The UAL amortization payment rate is developed to pay off the Plan's UAL based on the Plan's funding policies. The actuarial liability (AL) is that portion of the present value of benefits (PVB) that will not be paid by future City normal cost contributions or future member contributions. The difference between this liability and the funds accumulated as of the same date is referred to as the unfunded AL (UAL). For this Plan, the UAL amortization payment rate is calculated by amortizing this UAL over a closed 30-year period that began with the 2014 valuation, which therefore has 28 years remaining as of July 1, 2016.

Additional details regarding the Plan's contribution methodology are provided in Appendix B.

Table IV-1 presents and compares the Plan's calculated City contribution rate for the year beginning on each valuation date for this valuation and the prior one.

Table IV - 1
Calculated City Contribution Rate

	July 1, 2015	July 1, 2016
City Normal Cost Rate	13.44%	12.87%
UAL Amortization Payment Rate	7.73%	8.04%
Calculated City Contribution Rate	21.17%	20.91%

SECTION IV – CONTRIBUTIONS

Table IV-2 provides additional detail about the development of the calculated City contribution rate for the year beginning on each valuation date for this valuation and the immediately prior one.

Table IV - 2
Development of Calculated City Contribution Rate

		July 1, 2015	July 1, 2016
1.	**Present Value of Benefits**	$ 214,019,030	$ 217,687,979
2.	**Present Value of Total Future Contributions**	33,860,636	33,588,455
3.	**Actuarial Liability (1) - (2)**	$ 180,158,394	$ 184,099,524
4.	**Actuarial Value of Assets**	162,979,335	165,829,252
5.	**Unfunded Actuarial Liability (UAL)**	$ 17,179,059	$ 18,270,272
6.	**Calculated City Contribution in Dollars**	**FYE 2016**	**FYE 2017**
	a. Total Normal Cost	$ 3,651,655	$ 3,677,665
	b. Expected Member Contribution	1,277,054	1,327,508
	c. City Normal Cost (6a.) - (6b.)	$ 2,374,601	$ 2,350,157
	d. UAL Amortization Payment	1,366,304	1,468,508
	e. Calculated City Contribution, limited to 0	$ 3,740,905	$ 3,818,665
7.	**Projected Payroll for Funding Purposes***	$ 17,671,399	$ 18,256,495
8.	**City Contribution as Percentage of Payroll**		
	a. Total Normal Cost Rate	20.67%	20.14%
	b. Expected Member Contribution Rate	7.23%	7.27%
	c. City Normal Cost Rate (8a.) - (8b.)	13.44%	12.87%
	d. UAL Amortization Payment Rate	7.73%	8.04%
	e. Calculated City Contribution Rate, limited to 0	21.17%	20.91%

* City contributions are to be made to the Plan on the payroll of all active and DROP members.
These amounts are developed for the year beginning on each valuation date.

SECTION V – ACCOUNTING STATEMENT INFORMATION

Two types of liabilities are disclosed for accounting purposes.

In this section, we disclose the **ASC Topic 960 of the Financial Accounting Standards Board (FASB)** information.

Statement No. 67 of the Governmental Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The information for GASB 67 disclosures can be found in a separate report.

The Topic No. 960 disclosures provide a quasi "snap-shot" view of how the Plan's assets compare to its liability as of the valuation date. The liability is determined as if contributions stopped and the accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate. The Topic No. 960 liability is compared to the Market Value of Assets to determine the funding ratio.

The present value of accrued benefits (Topic No. 960) is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5% per annum.

SECTION V – ACCOUNTING STATEMENT INFORMATION

Table V - 1
Accounting Statement Information - FASB Topic 960 Basis
Accumulated Plan Benefits

		July 1, 2015	July 1, 2016
1.	Present Value of Benefits Accrued to Date		
	a. Members Currently Receiving Payments	$ 118,184,615	$ 116,562,665
	b. Terminated Vested Members	159,278	172,370
	c. DROP Members	11,320,306	15,688,415
	d. Inactive Members	82,695	129,234
	e. Active Members	38,168,860	39,102,913
2.	Total Present Value of Accrued Benefits [1(a) + 1(b) + 1(c) + 1(d) + 1(e)]	$ 167,915,754	$ 171,655,597
3.	Assets at Market Value	161,167,730	157,711,532
4.	Unfunded Value of Benefits	$ 6,748,024	$ 13,944,065
5.	Ratio of Assets to Value of Benefits (3) / (2)	96.0%	91.9%

Table V - 2
Statement of Changes in Accumulated Plan Benefits
July 1, 2015 - July 1, 2016
Accumulated Benefit
Obligation (FASB Topic 960)

Actuarial Present Value of Accumulated Plan Benefits at July 1, 2015	**$ 167,915,754**
Increase (Decrease) Due to:	
Benefits Accumulated and Gains and Losses	823,875
Change in Methodology	0
Interest Due to the Decrease in the Discount Period	12,243,885
Benefits Paid	(9,327,917)
Net Change	3,739,843
Actuarial Present Value of Accumulated Plan Benefits at July 1, 2016	**$ 171,655,597**

APPENDIX A – MEMBERSHIP DATA AND PROFILE

The Personnel Office of the City of Annapolis provided the actuary with all necessary membership data gathered as of July 1, 2016.

In Appendix A, we present a review of the current membership statistics. Table A-1 below summarizes the active membership count and payroll by status. Table A-2 summarizes the inactive membership by status. Table A-3 provides the status reconciliation of the members. Tables A-4 and A-5 show the active membership distribution by age, salary, and service.

Table A - 1
Active Member Statistics

	7/1/2015	7/1/2016
New Plan Revised (Pre 2012 Hires)		
Currently Eligible to Retire*	22	21
Not Currently Eligible to Retire	163	156
Average Projected Pay	$ 80,823	$ 83,264
Average Age	40	41
Average Service	12	12
New Plan Revised (Post 2012 Hires)		
Currently Eligible to Retire*	0	0
Not Currently Eligible to Retire	27	33
Average Projected Pay	$ 54,746	$ 56,247
Average Age	36	36
Average Service	2	2
DROP Participants		
Counts	12	16
Average Projected Pay	$ 103,416	$ 103,916
Average Age	52	52
Average Service	26	26
Total Plan		
Currently Eligible to Retire	22	21
Not Currently Eligible to Retire	190	189
Average Projected Pay	$ 77,502	$ 79,018
Average Age	40	40
Average Service	11	11

* Only shows those eligible for normal (unreduced) retirement.

APPENDIX A – MEMBERSHIP DATA AND PROFILE

Table A - 2
Inactive Member Statistics

	7/1/2015	7/1/2016
Service Retirement		
Count	145	141
Total Annual Benefit	$ 7,445,417	$ 7,369,081
Annuitized Annual Benefit	213,047	213,047
Net Payable from Plan Assets	$ 7,232,370	$ 7,156,034
Average Age	63	64
Disabilities		
Count	47	45
Total Annual Benefit	$ 1,752,733	$ 1,684,877
Annuitized Annual Benefit	170,011	153,306
Net Payable from Plan Assets	$ 1,582,722	$ 1,531,571
Average Age	65	65
Beneficiaries		
Count	29	35
Total Annual Benefit	$ 607,620	$ 764,850
Annuitized Annual Benefit	59,853	59,853
Net Payable from Plan Assets	$ 547,767	$ 704,997
Average Age	68	68
Total Plan		
Count	221	221
Total Annual Benefit	$ 9,805,770	$ 9,818,808
Annuitized Annual Benefit	442,911	426,206
Net Payable from Plan Assets	$ 9,362,859	$ 9,392,602
Average Age	64	65
Terminated Vested		
Count	2	2
Average Age	44	45
Inactives		
Count	27	30
Return of Member Contributions	$ 82,695	$ 129,234

APPENDIX A – MEMBERSHIP DATA AND PROFILE

Table A - 3
Status Reconciliation from July 1, 2015 to July 1, 2016

	Active	DROP	TV	Disabled	Retiree	Survivors	Inactives	Totals
1. July 1, 2015 valuation	**212**	**12**	**2**	**47**	**145**	**29**	**27**	**474**
2. Additions								
a. New entrants	14					1		15
3. Reductions								
a. Paid Out	(9)						3	(6)
b. Deaths without beneficiary				(2)	(2)			(4)
4. Changes in status								
a. Terminated - vested								
b. Entered DROP status	(5)	5						
c. Retired	(2)				2			
d. Disabled		(1)		1				
e. Died with beneficiary				(1)	(4)	5		
f. Data corrections								
5. July 1, 2016 valuation	**210**	**16**	**2**	**45**	**141**	**35**	**30**	**479**

APPENDIX A – MEMBERSHIP DATA AND PROFILE

Table A - 4
Active Counts by Age/ Service

Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
	Service										
Under 25	0	0	0	0	0	0	0	0	0	0	0
25 to 29	5	5	6	0	0	0	0	0	0	0	16
30 to 34	3	6	28	9	1	0	0	0	0	0	47
35 to 39	3	5	12	20	9	1	0	0	0	0	50
41 to 44	1	3	6	11	12	2	1	0	0	0	36
45 to 49	1	5	8	7	8	8	1	0	0	0	38
50 to 54	1	1	6	1	2	2	3	0	0	0	16
55 to 59	0	0	3	0	1	1	1	0	0	0	6
60 to 64	0	0	1	0	0	0	0	0	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0
Total	14	25	70	48	33	14	6	0	0	0	210

Table A - 5
Active Average Salary by Age/ Service

Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
	Service										
Under 25	0	0	0	0	0	0	0	0	0	0	0
25 to 29	52,291	61,004	69,835	0	0	0	0	0	0	0	61,593
30 to 34	51,296	62,044	72,613	77,690	89,540	0	0	0	0	0	71,236
35 to 39	47,058	58,642	73,631	79,978	93,991	96,254	0	0	0	0	77,194
41 to 44	66,246	60,621	75,179	83,184	95,039	92,897	126,025	0	0	0	85,180
45 to 49	66,246	61,172	73,886	78,134	93,877	106,954	96,254	0	0	0	84,554
50 to 54	46,375	63,954	105,048	79,057	99,938	90,768	98,160	0	0	0	93,473
55 to 59	0	0	91,812	0	83,295	108,686	83,295	0	0	0	91,785
60 to 64	0	0	74,800	0	0	0	0	0	0	0	74,800
65 to 69	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0
Total	52,527	60,887	76,549	79,996	94,246	101,993	100,009	0	0	0	79,018

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

A. Long-Term Assumptions Used to Determine Plan Costs and Liabilities

1. Demographic Assumptions

a. Mortality:

For non-disabled retirees: RP-2000 Mortality Table, projected to 2016 using Scale AA.

Annual Deaths Per 10,000 Members		
Age	Male	Female
20	3	2
25	4	2
30	4	3
35	8	4
40	10	7
45	14	10
50	20	15
55	33	26
60	62	49
65	119	95
70	206	163
75	353	270
80	612	443
85	1,069	752
90	1,798	1,297
95	2,648	1,926
100	3,428	2,363
105	3,979	2,931

100% of active deaths are assumed to be service-connected.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

For disabled retirees: RP-2000 Group Annuity Mortality Table projected from 2011 to 2016 using Scale AA, set forward five years.

Annual Deaths Per 10,000 Members		
Age	Male	Female
20	4	2
25	4	3
30	8	4
35	10	7
40	14	10
45	20	15
50	33	26
55	62	49
60	119	95
65	206	163
70	353	270
75	612	443
80	1,069	752
85	1,798	1,297
90	2,648	1,926
95	3,428	2,363
100	3,979	2,931
105	4,000	3,646

We believe that both of these mortality tables still include a margin for future improvement.

b. Termination of Employment (Prior to Normal Retirement Eligibility):

Annual Terminations Per 1,000 Members	
Years of Service	Terminations
1	100
2	50
3	30
4	30
5	30
6	30
7	30
8 - 24	10
25 or more	0

It is assumed that members who terminate before normal or early retirement age elect to receive a refund of contributions instead of vested benefits.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

c. Disability:

Annual Disabilities Per 10,000 Members	
Age	**Male and Female**
20	13
25	20
30	28
35	35
40	43
45	50
50	50
55	50
60	50

100% of disabilities are assumed to be service-connected.

d. Retirement:

Annual Retirements per 100 Police Members		
Years of Service	**Hired before 7/1/2012**	**Hired on or after 7/1/2012**
20	35	0
21	30	0
22	15	0
23	15	0
24	15	0
25	50	50
26	15	15
27	75	75
28	15	15
29	15	15
30	15	15
31	15	15
32	15	15
33	15	15
34	15	15
35	100	100

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

	Annual Retirements per 100 Fire Members	
Years of Service	Hired before 7/1/2012	Hired on or after 7/1/2012
20	15	0
21	15	0
22	15	0
23	15	0
24	15	0
25	33	33
26	15	15
27	15	15
28	25	25
29	25	25
30	50	50
31	30	30
32	30	30
33	30	30
34	30	30
35	100	100

e. Family Composition:

For purposes of valuing the pre-retirement death benefit, an assumption concerning how many employees are married is needed. The assumption used in this valuation is that 100% of employees are married at death while active and that the female spouse is one year younger than the male spouse.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

2. Economic Assumptions

Investment Return:

7.5% compounded per annum, after investment expenses

Cost-of-Living Benefit Increases:

3.5% compounded per annum for Old Plan, 3.0% compounded per annum for Old Plan Revised, and 2.0% compounded per annum for New Plan Revised

Across-the-Board Increase in City Salaries:

3.5% compounded per annum

Additional Salary Increases: Divided by Police versus Fire membership

Salary Merit Scale Police	
Years of Service	Percent Increase
0	4.5%
1	4.5
2	3.5
3	3.5
4	2.5
5	2.5
6	1.5
7	1.5
8	1.5
9	1.5
10+	0.5

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

Salary Merit Scale Fire	
Years of Service	**Percent Increase**
0	6.5%
1	6.5
2	5.0
3	4.0
4	2.5
5	1.5
6+	0.5

Administrative Expenses:

Assumed all will be paid by City

3. Rationale for Assumptions

Assumptions were set as a result of an experience study performed in 2013. We believe these assumptions remain appropriate for this Plan.

4. Changes Since Last Valuation

None

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODOLOGY

B. Actuarial Methods

1. Funding Method

The funding method used for this valuation is the Entry Age Normal funding method. Under this method, the calculated City contribution has two components: the City normal cost and the Unfunded Actuarial Liability amortization payment.

The City normal cost rate is determined in the following steps. First, for each active member an individual total normal cost rate is determined by taking the value, as of entry age into the Plan, of that member's projected future benefits and dividing it by the value, also at entry age, of the member's projected future salary. Then, this individual total normal cost rate is reduced by the member's contribution rate to produce the City normal costs amount for each member. This rate is then multiplied by each member's expected salary for the next year beginning on the valuation date to get the total City normal cost amount. To develop the total City normal cost rate, the sum of the City normal costs amount for all active members is divided by the sum of the expected salary for the next year beginning on the valuation date for all active members. These amounts and rates relating to normal cost represent the cost to fund that portion of the total future obligations, which has been allocated to the current year based upon the actuarial funding method.

The UAL amortization payment rate is developed to pay off the Plan's UAL based on the Plan's funding policies. The actuarial liability (AL) is that portion of the present value of benefits (PVB) that will not be paid by future City normal cost contributions or future member contributions. The difference between this liability and the funds accumulated as of the same date is referred to as the unfunded AL (UAL). For this Plan, the UAL amortization payment rate is calculated by amortizing this UAL over a closed 30-year period that began with the 2014 valuation, which therefore has 28 years remaining as of July 1, 2016.

2. Actuarial Value of Assets

The Plan uses a method based on the principle that the difference between actual and expected investment returns should be subject to partial recognition to smooth out fluctuations in the total return achieved by the Plan from year to year.

The actuarial value for this Plan equals the expected Actuarial Value of Assets, developed from the immediately prior valuation, plus one-third of the difference between the actual Market Value of Assets and that expected Actuarial Value of Assets at the valuation date. The expected actuarial value is the previous year's actuarial asset value adjusted with contributions, benefit payments, and interest at 7.5%, the Plan's assumed rate of return from the prior valuation.

3. Changes Since Last Valuation

None

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Appendix C provides a summary of the provisions of the Plan, based upon the Plan document as amended and restated effective July 1, 2015.

1. Membership

The Plan covers full-time sworn members of the City of Annapolis Police Department, including police cadets, but excluding parking meter enforcement officers as well as full-time fire suppression, fire prevention, and paramedic force members of the Fire Department of the City of Annapolis. Employees are eligible from their date of hire.

There are four sub-plans: Old Plan, Old Revised Plan, New Plan, and New Plan Revised. Which plan a member participates in is determined by hire date as well as voluntary election in some cases. Provisions for members of New Plan Revised further vary based on whether a member was hired before July 1, 2012. All current active members are now in New Plan Revised, so all active benefits included in this summary are those applicable to this sub-plan.

2. Salary

Salary for purposes of this Plan is for normally scheduled duty including authorized annual leave and sick leave, but excluding pay differentials and overtime or emergency response hours while not on scheduled duty.

3. Member Contributions

8.0% of salary as defined for the Plan

Interest is credited at the rate of 5% per year to member contributions.

4. Credited Service

All service as a member is credited to the nearest one-twelfth of a year. In addition, credit is allowed at the rate of one month for 22 days of accrued unused sick leave, to a maximum of 20 months. Additional service credit is available in some cases for military service or service with another governmental employer.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

5. Final Earnings

Twenty-six (26) times the average straight-time salary of the highest consecutive seventy-eight (78) biweekly pay periods during the 10-year period immediately preceding the date of the member's termination of employment.

6. Normal Retirement

Eligibility

On or after a member's normal retirement date, which is the date they have completed 20 years of credited service if hired before July 1, 2012 and 25 years of credited service if hired on or after this date.

Benefit

The benefit payable at 20 years of service is 50% of final earnings with additional service valued at 2.25% of final earnings from 20 to 24 years and 2.5% of final earnings for service more than 24 years up to a maximum of 70% at 28 years and 4 months of service.

Where necessary for other benefits, the rate of accrual from zero to 20 years is valued as 2.25% of final earnings per each year of service.

7. Service-Connected Disability

Eligibility

Employment termination by reason of total and permanent disability incurred during service

Benefit

66-2/3% of final earnings as of the date of disability, subject to applicable reduction from gainful employment and/or Social Security disability benefits

8. Ordinary Disability

Eligibility

10 years of service and termination of employment by reason of total and permanent disability not incurred during service

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Benefit

An amount determined under the normal retirement benefit formula, based on final earnings and credited service as of disability date, subject to applicable reduction from gainful employment and/or Social Security disability benefits.

9. Service-Connected Death

Eligibility

Death prior to termination of employment while in the line of duty

Benefit

Spouse receives 50% of the member's accrued benefit determined under the normal retirement benefit formula, based on final earnings and credited service as of the member's date of death. Minimum benefit is 30% of member's current salary plus an additional 5% of the member's current salary for each unmarried child under 18 to a maximum of 40% of the member's current salary at time of death. Benefits to children terminate at age 18. Spouse benefits terminate upon the spouse's death or remarriage.

10. Ordinary Death

Eligibility

Death prior to termination of employment while not in the line of duty

Benefit

If member had less than 10 years of credited service at time of death: a refund equal to the member's Withdrawal Benefit (detailed below) payable to the member's estate.

If member had 10 or more years of credited service at time of death: spouse receives 50% of member's accrued benefit determined under the normal retirement benefit formula, based on final earnings and credited service as of the member's date of death.

11. Deferred Retirement

Eligibility

10 years of credited service

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Benefit

Normal retirement benefit based on final earnings and credited service at date of termination. Benefit is payable in full at age 55.

A member may withdraw his contributions at termination, in which case no deferred vested benefit is payable.

12. Withdrawal Benefit

Eligibility

Not eligible for other benefits or elected in place of other benefit for which member is eligible

Benefit

Member contributions with interest

13. Form of Payment

The normal form of payment for New Plan and New Plan Revised is a life annuity with a guarantee that at least the amount of member contributions will be paid to the retiree or beneficiaries for New Plan Revised.

A member who is entitled to a normal or early retirement benefit may elect an actuarially equivalent Joint and Survivor benefit.

Members may also elect to have a Level Income Option, which is designed to provide for a level payment over the member's lifetime from a combination of the Plan and Social Security.

Actuarial equivalence is determined by the Plan to be based upon the 1971 Group Annuity Mortality Table using female rates with 6% per annum interest.

14. Cost-of-Living Adjustment

Old Plan: Retired and disabled members receive annual increases equal to the same percentage as any increase in the pay scale for members of the same rank and years of service who are on active duty.

Survivors receiving benefits will receive the same increase, subject to a cap of 3% per year.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Old Plan Revised:	Same provisions as Old Plan but service and disabled retirees' increase is capped at 4% per year as well as the cap of 3% for survivors receiving a benefit.
New Plan:	Each July 1, benefits are increased by 2%.
New Plan Revised:	Same provisions as New Plan.

Cost-of-living adjustments do not apply to deferred vested benefits prior to benefit commencement.

15. DROP Program

Eligibility

All active sworn Police and Fire personnel who are enrolled in the New Plan or the New Revised Plan are eligible for DROP participation upon attaining eligibility for normal retirement. Entry to DROP is restricted to a maximum total DROP population of 24 (maximum of 12 each for Police and Fire personnel) at any given time. In addition, DROP participation will be limited to a maximum of eight new participants (maximum of four each for Police and Fire personnel) per plan year until a maximum of 24 participants is realized.

Benefit

The benefit determined as of the first day of the DROP participation, plus accumulating interest, will be credited to a separate DROP account within the Plan, while the member continues to work for a three-year DROP period. Upon completion of the three-year DROP period, DROP participation ends, and the member must terminate employment. At that time, the participant will receive payment of the accumulated DROP account balance and begin receiving his or her monthly retirement benefit (in the same amount as determined at commencement of DROP participation, except adjusted to include credit for residual unused sick leave at separation of service). No cost-of-living increases are awarded to members during their DROP periods. After the first year, DROP entry occurs only on January 1.

The DROP account will be credited with interest during the DROP period at the average rate of the Composite Corporate Bond Rate over the June-November time-period in the previous plan year. Interest is compounded monthly.

Contributions

During the DROP period, the City will continue to make City contributions to the Plan on the basis of DROP members' salary. Any DROP participant who has not attained five or more years of additional credited service beyond his or her service requirement for normal retirement will also continue to make member contributions throughout the DROP period.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Early Termination of DROP Participation

Except for death or disability, a member who elects to withdraw from participation in DROP prior to the end of the three-year period shall forfeit his or her DROP account balance. Such member can then apply for normal retirement and have a benefit calculated using service and final earnings through the date of termination. The only way to terminate DROP participation other than through death or disability is to leave employment with the City.

Disability during DROP

The effective date of the disability will be treated as the end date of the DROP participation period. The member shall receive the disability benefits to which he or she would otherwise be entitled and shall forfeit the DROP account balance.

Death during DROP

Annuity benefits payable to a DROP participant's beneficiary will be due in accordance with the form of payment that was elected when the member entered DROP. In addition to any annuity benefit payable, the beneficiary shall receive the lump sum value of the DROP account balance.

16. Changes Since Last Valuation

Member contributions increased from 7.5% to 8.0% effective January 1, 2016 for Police and Fire hired before June 30, 2012.

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